## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Confirmation No.: 1259

CHESNUT et al.

Art Unit:

1636

Appl. No.: 10/792,035

Examiner:

Ketter, James S.

Filed: March 4, 2004

Atty. Docket: 0942.5340005/BJD/JKM

For: Methods and Compositions for **Synthesis of Nucleic Acid Molecules** 

**Using Multiple Recognition Sites** 

## Second Supplemental Information Disclosure Statement

Under 37 C.F.R. § 1.97(c)

Mail Stop Amendment

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

Listed on accompanying IDS Forms, PTO/SB/08A and PTO/SB/08B, are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Second Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' First Supplemental Information Disclosure Statement filed on March 4, 2005 in connection with the above-captioned application.

Copies of documents AN23 to AO23, AL24 to AM24, AT214 to AR216, AT216 to AR217, AS218 to AR220, AT220, AS221 to AS222, AR223 to AR225, AT225, AS226, AS227, and AR228 to AS233 are submitted. In accordance with 37 C.F.R. § 1.98(a)(2), copies of U.S. patents and patent application publications, documents AE22 to AA25, cited on the attached IDS Form, PTO/SB/08A, are not submitted. In addition, copies of documents AT233 and AR234 are not provided in accordance with the U.S.

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Patent and Trademark Office OG notice of October 19, 2004, which states: "the requirement in 37 C.F.R. § 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is sua sponte waived where the cited pending application is stored in the USPTO's IFW system."

Copies of documents, AM23, AP23, AS216, AS217 to AR218, AS220, AR221, AT222, AS225, AR226, AT226 to AR227, and AT227 were cited by or submitted to the Office in an Information Disclosure Statement that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. 10/005,876, filed December 7, 2001, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following discussion of the relevance of the non-English language documents AT218, AS221, AT221, AS228, and AT228 cited on PTO/SB/08B:

Document AT218, Gotou, N., et al., "Gateway, Cloning Technology," Exp. Med. Sci. 18:2716-2717, Invitrogen Corporation (December 2000), is in the Japanese language. An unverified English language translation of document AT218 is attached as document AR219.

Document **AS221**, Kisu, Y., *et al.*, "Development of high accuracy and high through put production multi purpose Gateway entry clones production. I. Improvement of the PCR condition for construction of the entry clone," abstract available at <a href="http://biotech.nikkeibp.co.jp/netlink/Ito/gateway/new\_info/contents9.html">http://biotech.nikkeibp.co.jp/netlink/Ito/gateway/new\_info/contents9.html</a>, (November 2000), is in

the Japanese language. An unverified English language abstract of document AS221 can be found on the face page of the document.

Document AT221, Kisu, Y., et al., "Development of high-throughput technology of entry clones of the multi-purpose Gateway cloning system (III): An improved method for high-efficient and high-fidelity construction of the entry clones," *Poster Session of the Annual Meeting of Japan Society of Molecular Biology*, Abstract No. 2P-730 (December 2001), is in the Japanese language. An unverified English language translation of document AT221 is attached as document AR222.

Document AS228, Yahata, K., et al., "Development of high accuracy and high through put production of multi purpose Gateway entry clones. Very low mutation frequency in constructing 60 entry clones of human full length cDNAs," abstract available at <a href="http://biotech.nikkeibp.co.jp/netlink/Ito/gateway/new\_info/contents9.html">http://biotech.nikkeibp.co.jp/netlink/Ito/gateway/new\_info/contents9.html</a> (November 2000), is in the Japanese language. An unverified English language abstract of document AS228 can be found on the face page of the document.

Document AT228, Yahata, K., et al., "Development of high accuracy and high-throughput production method of the entry clone of multi-purpose Gateway system. (IV) Improvement of DNA sequencing method for Gateway entry clones," Poster Session of the Annual Meeting of Japan Society of Molecular Biology, Abstract No. 2P-731 (December 2001), is in the Japanese language. An unverified English language translation of document AT228 is attached as document AR229.

The Examiner's attention is directed to the following co-pending U.S. Patent Applications, which are directed to related technical subject matter:

Application No. 11/106,715, Byrd *et al.*, filed April 15, 2005 and listed as Document **AT233**; and

Application No. 11/290,804, Gray et al., filed December 1, 2005 and listed as Document AR234.

In accordance with the recent Federal Circuit decision in *Dayco Prods., Inc. v.*Total Containment, Inc. 329 F.3d 1358 (Fed. Cir. 2003), Applicants submit herewith

Office Actions from:

the related co-pending U.S. Patent Application No. 09/432,085, Hartley et al, as Document AT229;

the related co-pending U.S. Patent Application No. 09/517,466, Hartley et al, as Document AR230;

the related co-pending U.S. Patent Application No. 09/855,797, Hartley *et al*, as Documents **AS230** and **AT230**;

the related co-pending U.S. Patent Application No. 09/907,719, Hartley et al, as Document AR231;

the related co-pending U.S. Patent Application No. 10/058,291, Hartley *et al*, as Documents **AS231** and **AT231**;

the related co-pending U.S. Patent Application No. 10/058,292, Hartley *et al*, as Documents **AR232** and **AS232**;

the related co-pending U.S. Patent Application No. 10/151,690, Brasch et al, as Document AT232;

the related co-pending U.S. Patent Application No. 10/162,879, Hartley *et al*, as Documents **AR233** and **AS233**;

which are directed to related technical subject matter. The identification of these applications and Office Actions is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent

application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jeffrey K. Mills

Agent for Applicants

Registration No. 56,413

Date:

April 28, 2006

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

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## SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

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Complete if Known				
Application Number 10/792,035				
Filing Date March 4, 2004				
First Named Inventor	Jonathan D. CHESNUT			
Art Unit	1636			
Examiner Name Ketter, James S.				
Attorney Docket Number	0942.5340005/BJD/JKM			

			U.S. PATENT DO	OCUMENTS	
Examiner Cite Initials No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
	110.	Number-Kind Code <sup>2 (If Known)</sup>	1	Approant of Cited Document	or Relevant Figures Appear
•	AE22	5,552,314	09/03/1996	Greener	
	AF22	5,695,971	12/09/1997	Kadokami et al.	
	AG22	5,910,438	06/08/1999	Bernard et al.	
	AH22	5,994,136	11/30/1999	Naldini et al.	
	AI22	6,025,192	02/15/2000	Beach et al.	
	AJ22	6,040,138	03/21/2000	Lockhart et al.	
	AK22	6,110,735	08/29/2000	Chartier et al.	
	AA23	6,120,764	09/19/2000	Graham et al.	
	AB23	6,121,043	09/19/2000	Cochran et al.	
	AC23	6,140,087	10/31/2000	Graham et al.	
	AD23	6,156,497	12/05/2000	Kaleko	
	AE23	6,165,782	12/26/2000	Naldini et al.	
	AF23	6,228,646	05/08/2001	Hardy	
	AG23	6,277,620	08/21/2001	Gwynn et al.	
	AH23	6,281,000	08/28/2001	Chartier et al.	
	AI23	6,548,277	04/15/2003	Shuman	
	AJ23	6,576,463	06/10/2003	Kasahara et al.	
•	AK23	6,916,632	07/12/2005	Chesnut et al.	
•	AA24	6,964,861	11/15/2005	Gerard et al.	
	AB24	2003/0022179 A1	01/30/2003	Chesnut et al.	

		Fc	REIGN PATENT DO	OCUMENTS	
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY		
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)			T <sup>6</sup>
	AM23	WO 96/23904 A1	08/08/1996	Replicon, Inc.	
	AN23	WO 97/47758 A1	12/18/1997	Massachusetts Institute of Technology	
	AO23	WO 98/38326 A1	09/03/1998	Nature Technology Corporation	
	AP23	WO 98/56943 A1	12/17/1998	Sloan Kettering Inst. Cancer; Invitrogen Corp.	
	AL24	WO 2005/012487 A2	02/10/2005	Invitrogen Corporation	
	AM24	WO 2005/014796 A2	02/17/2005	Invitrogen Corporation	
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Examiner	Date	
Signature	Considered	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

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Substitute	Substitute for form 1449/PTO				Complete if Known		
SECO	CECOND CUDDI EMENTAL				Application Number	10/792,035	
	SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	March 4, 2004			
			First Named Inventor	Jonathan D. CHESNUT			
STAT			Art Unit	1636			
	(Use as	many she	ets as necessa	ry)	Examiner Name	Ketter, James S.	
Sheet	2	of	2		Attorney Docket Number	0942.5340005/BJD/JKM	

			U.S. PATENT DO	CUMENTS		
Examiner Cite Initials No.1		Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Number-Kind Code <sup>2 (If Known)</sup>		rippineant of chied Boodinent	or Relevant Figures Appear	
	AC24	2003/0175772 A1	09/18/2003	Wang, Jiwu		
	AD24	2004/0132133 A1	07/08/2004	Bennett, Robert P.		
	AE24	2004/0253620 A1	12/16/2004	Leong et al.		
	AF24	2005/0069929 A1	03/31/2005	Chestnut et al.		
	AG24	2005/0095615 A1	05/05/2005	Welch et al.		
	AH24	2005/0176065 A1	08/11/2005	Hanson, George Thomas		
	AI24	2005/0181417 A1	08/18/2005	Miles et al.		
	AJ24	2005/0208530 A1	09/22/2005	Chesnut et al.		
-	AK24	2006/0035269 A1	02/16/2006	Hartley et al.		
	AA25	2006/0035272 A1	02/16/2006	Brasch et al.		

			FOREIGN PATENT DO	CUMENTS		
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document  Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>3</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Té
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Examiner	Date	
Signature	Considered	

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PTO/SB/08B (07-05)

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Substitute form 1449	Con	mplete if Known
SECOND SUPPLEMENTAL	Application Number	10/792,035
	Filing Date	March 4, 2004
INFORMATION DISCLOSURE	First Named Inventor	Jonathan D. CHESNUT
STATEMENT BY APPLICANT	Art Unit	1636
(Use as many sheets as necessary)	Examiner Name	Ketter, James S.
Sheet 1 of 7	Attorney Docket Number	0942.5340005/BJD/JKM

		Non Patent Literature Documents	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	AT214	Alonso, J.C., "Site-specific recombination in Gram-positive theta-replicating plasmids," <i>FEMS Microbiol. Lett. 142</i> :1-10, Elsevier Science B.V. (1996)	
	AR215	Amin, A.A., et al., "Synthesis of an Enzymatically Active FLP Recombinase In Vitro: Search for a DNA-Binding Domain," Molec. Cell. Biol. 9: 1987-1995, American Society for Microbiology (1989)	
	AS215	Andersen, A.H., et al., "Studies if the Topisomerase II-mediated Cleavage and Religation Reactions by Use of a Suicidal Double-stranded DNA Substrate," J. Biol. Chem. 266:9203-9210, The American Society for Biochemistry and Molecular Biology, Inc. (1991)	
	AT215	Aoki, K., et al., "Efficient Generation of Recombinant Adenoviral Vectors bt Cre-lox Recombination In Vitro," Molec. Med. 5:224-231, Springer (1999)	
	AR216	Berger, J.M., "Structure of DNA topoisomerase," <i>Biochim. Biophys. Acta 1400</i> :3-18, Elsevier Science B.V. (1999)	
	AS216	Bliska, J.B and Cozzarelli, N.R., "Use of Site-Specific Recombination as a Probe of DNA Structure and Metabolism in Vivo," J. Molec. Biol. 194:205-218, Academic Press Inc. (1987)	
	AT216	Carninci, P. and Hayashizaki, Y., "High-Efficiency Full-Length cDNA Cloning," <i>Meth. Enzymol.</i> 303:19-44, Academic Press (1999)	
	AR217	Caron, P.R. and Wang, J.C., "Appendix II: Alignment of Primary Sequences of DNA Topoisomerases," Adv. Pharmacol. 29B:271-297, Academic Press, Inc. (1994)	
	AS217	Chatterjee, P.K. and Sternberg, N.L., "Retrofitting High Molecular Weight DNA Cloned in P1: Introduction of Reporter Genes, Markers Selectable in Mammalian Cells and Generation of Nested Deletions," <i>Genet. Anal.: Biomolec. Eng. 13</i> :33-42, Elsevier Science B.V. (1996)	
524804.1	AT217	Cheng, C. and Shuman, S., "Recombinogenic Flap Ligation Pathway for Intrinsic Repair of Topoisomerase IB-Induced Double-Strand Breaks," <i>Mol. Cell. Biol.</i> 20:8059-8068, American Society for Microbiology (2000)	

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Examiner	Date	
Signature	Considered	

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	SECOND SUPPLEMENTAL			Filing Date	March 4, 2004		
INFORMATION DISCLOSURE				First Named Inventor	Jonathan D. CHESNUT		
· <del>-</del>	STATEMENT BY APPLICANT			Art Unit	1636		
	(Use as many	sheets a	s necessary)	Examiner Name	Ketter, James S.		
Sheet	2	of	7	Attorney Docket Number	0942.5340005/BJD/JKM		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	AR218	Cheng, C., et al., "Conservation of Structure and Mechanism between Eukaryotic Topoisomerase I and Site-Specific Recombinases," Cell 92841-850, Cell Press (1998)	
	AS218	DiGate, R.J. and Marians, K.J., "Molecular Cloning and DNA Sequence Analysis of Escherichia coli topB, the Gene Encoding Topoisomerase III," <i>J. Biol. Chem.</i> 264:17924-17930, The American Society for Biochemistry and Molecular Biology, Inc. (1989)	
	AT218	Gotou, N., et al., "Gateway™ Cloning Technology," Exp. Med. Sci. 18:2716-2717, Invitrogen Corporation (2000)	Yes
	AR219	English language translation for Gotou, N., et al., "Gateway, Cloning Technology," Exp. Med. Sci. 18:2716-2717, Invitrogen Corporation (2000)	
	AS219	Gupta, M., et al., "Eukaryotic DNA topoisomerases I," Biochim. Biophys. Acta 1262:1-14, Elsevier Science B.V. (1995)	
	AT219	Hanai, R., et al., "Human TOP3: A single-copy gene encoding DNA topoisomerase III," Proc. Natl. Acad. Sci. USA 93:3653-3657, The National Academy of Sciences (1996)	
	AR220	Huang, LC., et al., "A bacterial model system for chromosomal targeting," Nucl. Acids Res. 19:443-448, Oxford University Press (1991)	
	AS220	Kanegae, Y., et al., "Efficient gene activation in mammalian cells by using recombinant adenovirus expressing site-specific Cre recombinase," Nucl. Acids Res. 23:3816-3821, Oxford University Press (1995)	
	AT220	Kijima, T., et al., "Application of the Cre Recombinase/loxP System Further Enhances Antitumor Effects in Cell Type-specific Gene Therapy against Carcinoembryonic Antigen-producing Cancer," Canc. Res. 59:4906-4911, American Association for Cancer Research, Inc. (1999)	

Examiner	Date	
Signature	Considered	

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Substitute for	form 1449/P	го		Co	mplete if Known
CECON	D CLIDDI	TORACT	INTEL A E	Application Number	10/792,035
SECON				Filing Date	March 4, 2004
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			First Named Inventor	Jonathan D. CHESNUT
STATE				Art Unit	1636
				Examiner Name	Ketter, James S.
Sheet	3	of	7	Attorney Docket Number	0942.5340005/BJD/JKM

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	AR221	Kim, R.A. and Wang, J.C., "Identification of the Yeast TOP3 Gene Product as a Single Strans-specific DNA Topoisomerase," <i>J. Biol. Chem.</i> 267:17178-17185, The American Society for Biochemistry and Molecular Biology, Inc. (1992)	
	AS221	Kisu, Y., et al., "Development of high accuracy and high through put production multi purpose Gateway entry clones production. I. Improvement of the PCR condition for construction of the entry clone," abstract available at <a href="http://biotech.nikkeibp.co.jp/netlink/Ito/gateway/new_info/contents9.html">http://biotech.nikkeibp.co.jp/netlink/Ito/gateway/new_info/contents9.html</a> , (2000)	Abs
	AT221	Kisu, Y., et al., "Development of high-throughput technology of entry clones of the multi-purpose Gateway cloning system (III): An improved method for high-efficient and high-fidelity construction of the entry clones," Poster Session of the Annual Meeting of Japan Society of Molecular Biology, Abstract No. 2P-730 (December 2001)	Yes
	AR222	English language translation of Kisu, Y., et al., "Development of high-throughput technology of entry clones of the multi-purpose Gateway cloning system (III): An improved method for high-efficient and high-fidelity construction of the entry clones," Poster Session of the Annual Meeting of Japan Society of Molecular Biology, Abstract No. 2P-730 (December 2001)	
	AS222	Li, Z., et al., "The traE Gene of Plasmid RP4 Encodes a Homologue of Escherichia coli DNA Topoisomerase III," J. Biol. Chem. 272:19582-19587, The American Society for Biochemistry and Molecular Biology, Inc. (1997)	
	AT222	Lieber, A., et al., "Recombinant Adenoviruses with Large Deletions Generated by Cre-Mediated Excision Exhibit Different Biological Properties Compared with First-Generation Vectors In Vitro and In Vivo," J. Virol. 70:8944-8960, American Society for Microbiology (1996)	
	AR223	Liu, X. and Gorovsky, M.A., "Mapping the 5' and 3' Ends of <i>Tetrahymena</i> thermophelia mRNAs Using RNA Ligase Mediated Amplification of cDNA Ends (RLM-RACE)," <i>Nucl. Acids Res. 21</i> :4954-4960, Oxford University Press (1993)	
	AS223	Ng, P., et al., "A High-Efficiency Cre//loxP-Based System for Construction of Adenoviral Vectors," Human Gene Ther. 10:2667-2672, Mary Ann Liebert, Inc. (1999)	

Examiner	· · · · · · · · · · · · · · · · · · ·	Date	-
Signature		Considered	

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Applicant's unique citation designation number (optional).

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Substitute for	form 1449/P	то		Co	Complete if Known		
CECON	n cumni	TO NATE	DATE A Y	Application Number	10/792,035		
	SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Filing Date	March 4, 2004		
				First Named Inventor	Jonathan D. CHESNUT		
STATE				Art Unit	1636		
				Examiner Name	Ketter, James S.		
Sheet	4	of	7	Attorney Docket Number	0942.5340005/BJD/JKM		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	AT223	"pENTR Directional TOPO® Cloning Kits," <i>Invitrogen Manual</i> , catalog nos. K2400-20, K2400-480, K2400-500, K2420-20, K2420-80, K2420-500, Version B, Invitrogen Corporation, Carlsbad, CA, 48 pages (July 2002)	
	AR224	Petersen, B.Ø., et al., "Characterization of a DNA Topoisomerase Encoded by Amsacta moorei Entomopoxvirus," Virol. 230:197-206, Academic Press (1997)	
	AS224	Pfeifer, A., et al., "Delivery of the Cre recombinase by a self-deleting lentiviral vector: Efficient gene targeting in vivo," Proc. Natl. Acad. Sci. USA 98:11450-11455, National Academy of Science (September 2001)	•
	AT224	"pLenti6/V5 Directional TOPO® Cloning Kit," <i>Invitrogen Manual</i> , catalog no. K4955-10, Version B, Invitrogen Corporation, Carlsbad, CA, 52 pages (May 2002)	
	AR225	Roca, J. and Wang, J.C., "The Capture of a DNA Double Helix by an ATP-Dependent Protein Clamp: A Key Step in DNA Transport by Type II DNA Topoisomerases," <i>Cell</i> 71:833-840, Cell Press (1992)	
	AS225	Sekiguchi, J. and Shuman, S., "Requirements for noncovalent binding of vaccinia topoisomerase I to duplex DNA," <i>Nucl. Acids Res. 22</i> :5360-5365, Oxford University Press (1994)	
	AT225	Shashikant. C.S., et al., "Recombinogenic targeting: a new approach to genomic analysis - a review," Gene 223:9-20, Elsevier Science B.V. (1998)	
	AR226	Shuman, S., "Vaccinia virus DNA topoisomerase: a model eukaryotic type IB enzyme," <i>Biochim. Biophys. Acta 1400</i> :321-337, Elsevier Science B.V. (1998)	
	AS226	Shuman, S. and Bernard M., "Identification of a vaccinia virus gene encoding a type I DNA topoisomerase," <i>Proc. Natl. Acad. Sci. USA 84</i> :7478-7482, National Academy of Sciences (1987)	
	AT226	Walhout, A.J.M., "Protein Interaction Mapping in C. elegans Using Protein Involved in Vulval Development," <i>Science 287</i> :116-122, American Association for the Advancement of Science (2000)	

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Substitute for f	Substitute for form 1449/PTO SECOND SUPPLEMENTAL INFORMATION DISCLOSURE			Complete if Known		
CECONE				Application Number	10/792,035	
				Filing Date	March 4, 2004	
				First Named Inventor	Jonathan D. CHESNUT	
			PLICANT	Art Unit	1636	
(Use as many sheets as necessary)			s necessary)	Examiner Name	Ketter, James S.	
Sheet	5	of	7	Attorney Docket Number	0942.5340005/BJD/JKM	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T <sup>2</sup>
	AR227	Walhout, A.J.M., "GATEWAY Recombinational Cloning: Application to the Cloning of Large Numbers of Open Reading Frames or ORFeomes," <i>Meth. Enzymol.</i> 328:575-592, Academic Press (2000)	
	AS227	Wang, J.C., "DNA Topoisomerases: Why So Many?," J. Biol. Chem. 266:6659-6662, The American Society for Biochemistry and Molecular Biology, Inc. (1991)	
	AT227	Wang, Y., et al., "Targeted DNA recombination in vivo using an adenovirus carrying the cre recombinase gene," <i>Proc. Natl. Acad. Sci. USA 93</i> :3932-3936, National Academy of Sciences (1996)	
	AR228	Wilson, T.M., et al., "Cloning and Characterization of Drosophila Topoisomerase IIIβ," J. Biol. Chem. 275:1533-1540, The American Society for Biochemistry and Molecular Biology, Inc. (2000)	
	AS228	Yahata, K., et al., "Development of high accuracy and high through put production of multi purpose Gateway entry clones. Very low mutation frequency in constructing 60 entry clones of human full length cDNAs," abstract available at http://biotech.nikkeibp.co.jp/netlink/Ito/gateway/new info/contents9.html (2000)	Abs
	AT228	Yahata, K., et al., "Development of high accuracy and high-throughput production method of the entry clone of multi-purpose Gateway system. (IV) Improvement of DNA sequencing method for Gateway entry clones," Poster Session of the Annual Meeting of Japan Society of Molecular Biology, Abstract No. 2P-731 (December 2001)	Yes
	AR229	English language translation of Yahata, K., et al., "Development of high accuracy and high-throughput production method of the entry clone of multi-purpose Gateway system. (IV) Improvement of DNA sequencing method for Gateway entry clones," Poster Session of the Annual Meeting of Japan Society of Molecular Biology, Abstract No. 2P-731 (December 2001)	
	AS229	Zhang, H.L., et al., "Escherichia coli DNA Topoisomerase III Is a Site-specific DNA Binding Protein That Binds Asymmetrically to Its Cleavage Site," J. Biol. Chem. 270:23700-23705, The American Society for Biochemistry and Molecular Biology, Inc. (1995)	

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CECONI	D CLIDDI	TO B # TO	UNION A T	Application Number	10/792,035	
SECOND SUPPLEMENTAL				Filing Date	March 4, 2004	
INFORMATION DISCLOSURE				First Named Inventor	Jonathan D. CHESNUT	
STATEMENT BY APPLICANT				Art Unit	1636	
(Use as many sheets as necessary)		Examiner Name	Ketter, James S.			
Sheet	6	of	7	Attorney Docket Number	0942.5340005/BJD/JKM	

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	AT229	Copy of Office Action for United States Patent Application No. 09/432,085, Hartley et al., mailed June 16, 2005	
	AR230	Copy of Office Action for United States Patent Application No. 09/517,466, Hartley et al., mailed November 18, 2005	
	AS230	Copy of Office Action for United States Patent Application No. 09/855,797, Hartley et al., mailed April 20, 2005	
	AT230	Copy of Office Action for United States Patent Application No. 09/855,797, Hartley et al., mailed October 11, 2005	
	AR231	Copy of Office Action for United States Patent Application No. 09/907,719, Hartley et al., mailed July 26, 2005	
	AS231	Copy of Office Action for United States Patent Application No. 10/058,291, Hartley et al., mailed April 28, 2005	
	AT231	Copy of Office Action for United States Patent Application No. 10/058,291, Hartley et al., mailed October 21, 2005	
	AR232	Copy of Office Action for United States Patent Application No. 10/058,292, Hartley et al., mailed May 26, 2005	
	AS232	Copy of Office Action for United States Patent Application No. 10/058,292, Hartley et al., mailed November 18, 2005	
	AT232	Copy of Office Action for United States Patent Application No. 10/151,690, Brasch et al., mailed April 18, 2005	

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SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/792,035	
				Filing Date	March 4, 2004	
				First Named Inventor	Jonathan D. CHESNUT	
				Art Unit	1636	
(Use as many sheets as necessary)			is necessary)	Examiner Name	Ketter, James S.	
Sheet	7	of	7	Attorney Docket Number	0942.5340005/ВЈД/ЈКМ	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), voluinumber, publisher, city and/or country where published		
	AR233	Copy of Office Action for United States Patent Application No. 10/162,879, Hartley et al., mailed April 28, 2005	
	AS233	Copy of Office Action for United States Patent Application No. 10/162,879, Hartley et al., mailed October 20, 2005	
	AT233	United States Patent Application No. 11/106,715, Byrd et al., filed April 15, 2005	
	AR234	United States Patent Application No. 11/290,804, Gray et al., filed December 1, 2005	

Examiner	 Date	
Signature	Considered	

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